

Motorcycles

2004

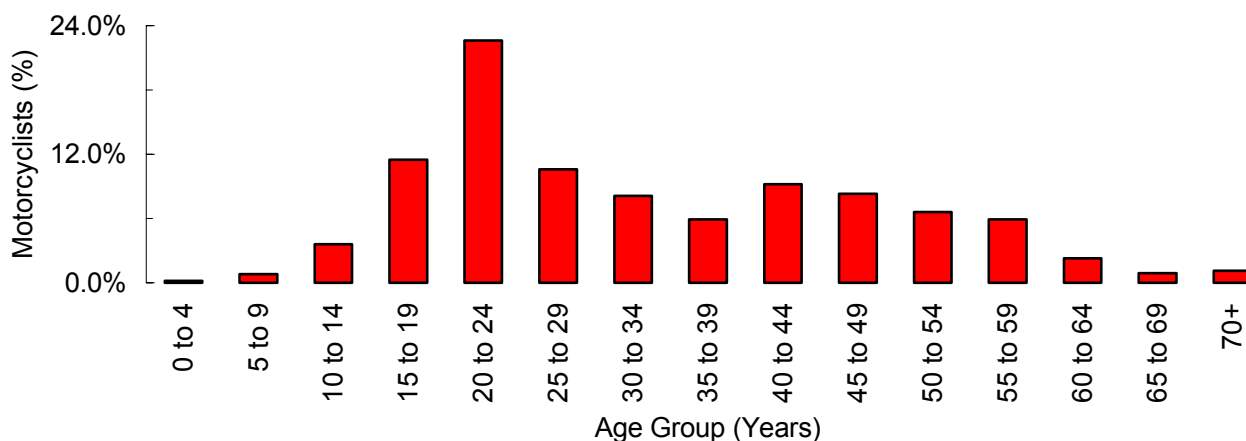
MOTORCYCLES



Did you know that in 2004. . .

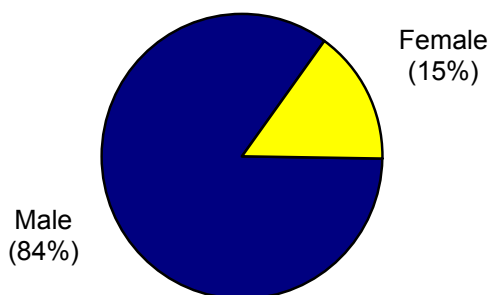
- There were 938 total motorcycle crashes in Utah, resulting in 877 injured motorcyclists and 31 motorcyclist fatalities.
- There was an 18.8% increase from 2003 in the rate of total motorcycle crashes, and a 17.9% increase from 2003 in the rate of motorcycle injury crashes.
- Nearly all of the motorcycle crashes resulted in a non-fatal injury (85.8%) compared to 36.0% of all motor vehicle crashes.
- Motorcyclists were 16 times more likely to be killed in a crash than other crash occupants.

Age of Motorcyclists (Driver and Passenger) Involved in Crashes (Utah 2004)



- Approximately one-half (49.3%) of the motorcyclists involved in crashes were under the age of 30 years.
- Motorcyclists aged 20 to 24 years were involved in the highest percentage of crashes (22.6%).

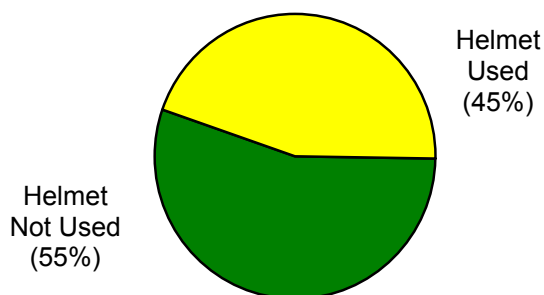
Gender of Motorcyclists Involved in Crashes (Utah 2004)



NOTE: Gender was missing for 1% of motorcyclists.

- Most motorcyclists involved in crashes were male (84%).
- The high percentage of male motorcyclists involved in crashes does not necessarily indicate that male motorcyclists are at greater risk for a crash, but may reflect the higher proportion of motorcycle users who are male.

Helmet Use of Motorcyclists Killed in a Crash (Utah 2004)

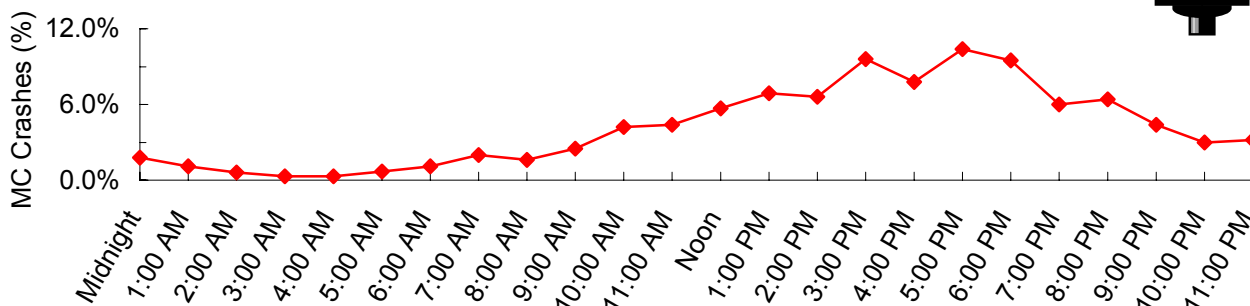


- The majority of the motorcyclists killed in a crash were not wearing a helmet (55%).
- Overall, only 37.2% of motorcycle drivers and passengers involved in crashes wore a helmet.
- Utah law states that anyone under the age of 18 years riding a motorcycle, either as the driver or as a passenger, must wear a helmet approved by the Department of Public Safety.

MOTORCYCLES

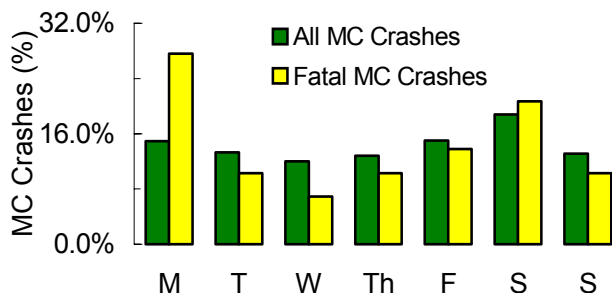


Time of Day Motorcycle Crashes Occurred (Utah 2004)



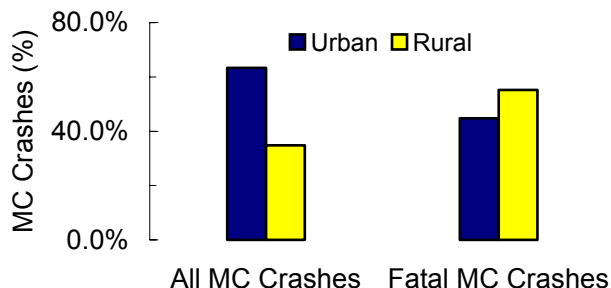
- The highest percentage of motorcycle crashes occurred between 1:00 pm and 6:00 pm.

Motorcycle Crashes by Day of Week (Utah 2004)



- The highest percentage of all motorcycle crashes occurred on Saturday (18.8%).
- Fatal motorcycle crashes occurred most frequently on Monday (27.6%).

Urban/Rural Location of Motorcycle Crashes (Utah 2004)



- The majority of all motorcycle crashes occurred in urban areas (63.7%).
- The largest percentage of fatal motorcycle crashes occurred in rural areas (55.2%).
- Motorcycle crashes in rural areas were twice as likely to result in a fatality than motorcycle crashes in urban areas.

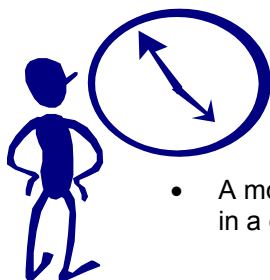
Leading Motorcycle Crash Violations* (Utah 2004)

- Following Too Close (12.5%)
- Improper Lookout (9.3%)
- Driving Under the Influence (7.4%)
- Speeding (6.0%)
- Reckless Driving (4.6%)

Approximately one-quarter (22.6%) of the motorcycle drivers involved in crashes received a citation.

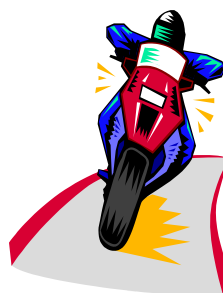
*Does not include "other moving violations" and "other non-moving violations".

Motorcycle Crash Clock (Utah 2004)



- A motorcyclist was involved in a crash every 8 hours.

Alcohol and Other Drug Involvement



- Of the 30 motorcycle drivers involved in fatal crashes in 2004, 5 were impaired by alcohol or other drugs (16.7%).
- This compares to 4.5% of motorcycle drivers involved in fatal crashes in 2003 that were impaired.

Section 6: Motorcycles

Section 6: Motorcycles 2004

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Crash Characteristics

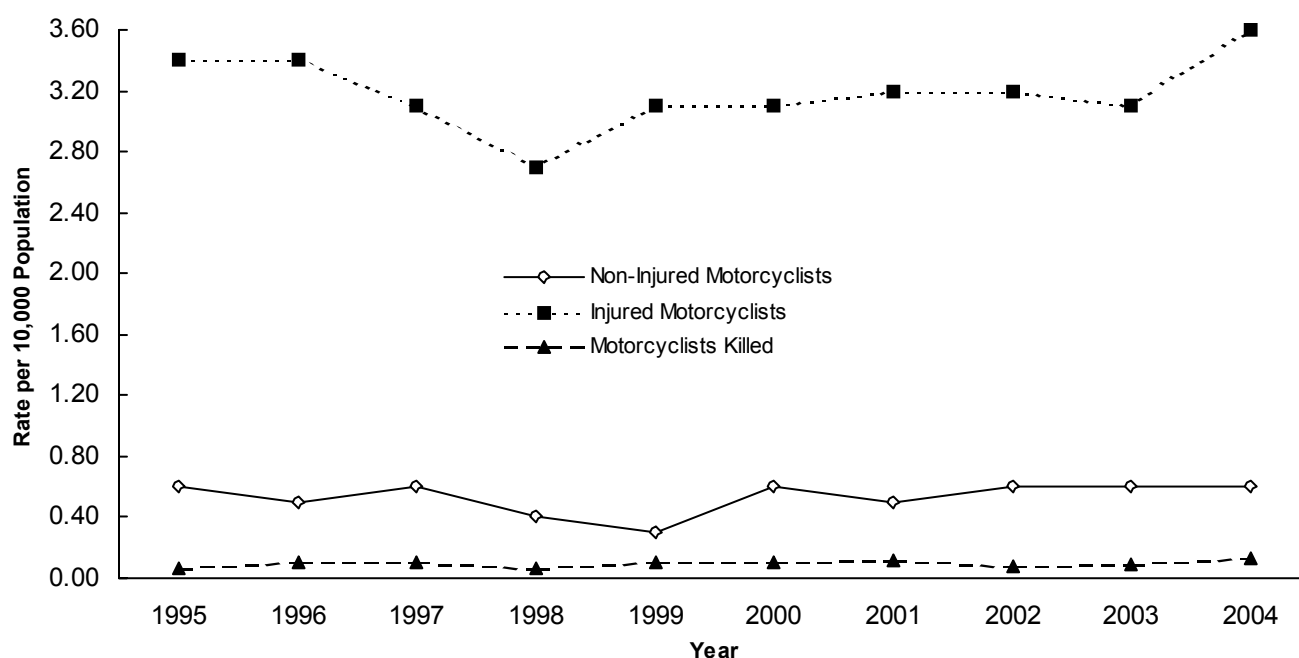
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Trends

Motorcyclists Involved in Crashes 1995-2004

Motorcyclists (Driver and Passenger)									
Year	Population	Non-Injured Persons		Injured Persons		Persons Killed		Total Persons	
		Non-Injured Motorcyclists #	Rate per 10,000 Population	Injured Motorcyclists #	Rate per 10,000 Population	Motorcyclists Killed #	Rate per 10,000 Population	All Motorcyclists #	Rate per 10,000 Population
1995	1,995,228	119	0.6	680	3.4	11	0.06	810	4.1
1996	2,042,893	112	0.5	698	3.4	21	0.10	831	4.1
1997	2,099,409	120	0.6	652	3.1	22	0.10	794	3.8
1998	2,141,632	93	0.4	584	2.7	14	0.07	691	3.2
1999	2,193,014	76	0.3	671	3.1	23	0.10	770	3.5
2000	2,246,553	124	0.6	694	3.1	24	0.11	842	3.7
2001	2,295,971	124	0.5	733	3.2	28	0.12	885	3.9
2002	2,338,761	130	0.6	755	3.2	18	0.08	903	3.9
2003	2,385,358	134	0.6	730	3.1	22	0.09	886	3.7
2004	2,469,230	149	0.6	877	3.6	31	0.13	1,057	4.3
Total	22,208,049	1,181	0.5	7,074	3.2	214	0.10	8,469	3.8

Motorcyclists Involved in Crashes (Driver and Passenger) (Utah 1995-2004)



- The above table and graph show the trends in motorcyclists (driver and passenger) involved in crashes from 1995 to 2004.
- Overall, the rate of motorcyclists involved in crashes decreased from 1995 to 1998, with the lowest rate of motorcyclists involved in crashes occurring in 1998 (3.2). This has been followed by an upward trend.
- In fact, in 2004 there was a 16.2% increase in the rate of total motorcyclists involved in crashes and a 16.1% increase in the rate of motorcyclists injured in crashes from 2003.
- While the number of motorcyclists killed in crashes varies from year to year, the small number of fatalities makes it difficult to compare yearly increases and decreases.

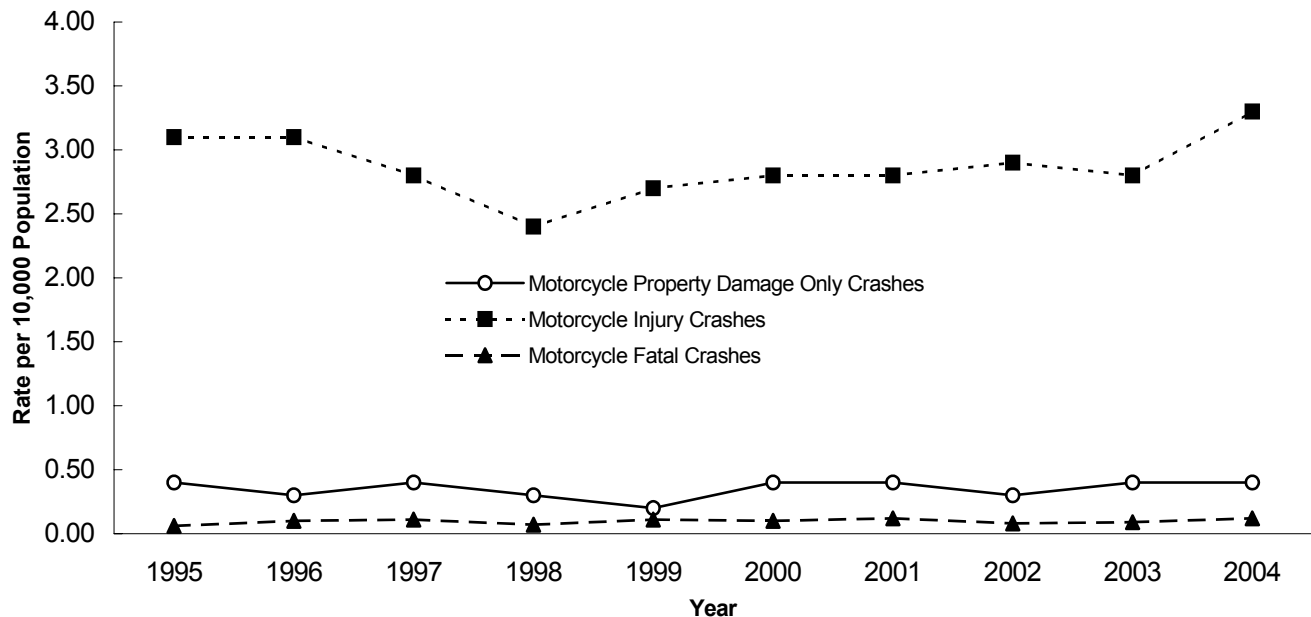
Trends

Motorcycle Crashes 1995-2004

Motorcycle Crashes									
Year	Population	Property Damage Only (PDO)		Injury		Fatal		Total	
		Motorcycle PDO Crashes #	Rate per 10,000 Population	Motorcycle Injury Crashes #	Rate per 10,000 Population	Motorcycle Fatal Crashes #	Rate per 10,000 Population	All Motorcycle Crashes #	Rate per 10,000 Population
1995	1,995,228	86	0.4	614	3.1	11	0.06	711	3.6
1996	2,042,893	66	0.3	626	3.1	21	0.10	713	3.5
1997	2,099,409	80	0.4	594	2.8	23	0.11	697	3.3
1998	2,141,632	66	0.3	509	2.4	14	0.07	589	2.8
1999	2,193,014	52	0.2	602	2.7	24	0.11	678	3.1
2000	2,246,553	88	0.4	624	2.8	22	0.10	734	3.3
2001	2,295,971	82	0.4	648	2.8	28	0.12	758	3.3
2002	2,338,761	81	0.3	689	2.9	18	0.08	788	3.4
2003	2,385,358	84	0.4	661	2.8	21	0.09	766	3.2
2004	2,469,230	104	0.4	805	3.3	29	0.12	938	3.8
Total	22,208,049	789	0.4	6,372	2.9	211	0.10	7,372	3.3

NOTE: A crash may result in multiple injuries and/or fatalities.

Motorcycle Crashes (Utah 1995-2004)



- The above table and graph show the trends in motorcycle crashes from 1995 to 2004.
- Overall, the rate of motorcycle crashes decreased from 1995 to 1998, with the lowest rate of motorcycle crashes occurring in 1998 (2.8). This has been followed by an upward trend.
- In fact, in 2004 there was a 18.8% increase in the rate of total motorcycle crashes and a 17.9% increase in the rate of motorcycle injury crashes from 2003.
- While fatal motorcycle crashes vary from year to year, the small number of fatal crashes makes it difficult to compare yearly increases and decreases.

Counties

Motorcyclists Involved in Crashes by County (Utah 2004)

Motorcyclists (Driver and Passenger)												
County	Non-Injured Persons			Injured Persons			Persons Killed			Total Persons		
	Non-Injured Motor-cyclists #	Rate per 100 Million VMT	Rate per 10,000 Population	Injured Motor-cyclists #	Rate per 100 Million VMT	Rate per 10,000 Population	Motor-cyclists Killed #	Rate per 100 Million VMT	Rate per 10,000 Population	All Motor-cyclists #	Rate per 100 Million VMT	Rate per 10,000 Population
Beaver	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
Box Elder	1	0.1	0.2	12	1.4	2.7	1	0.1	0.2	14	1.6	3.1
Cache	11	1.3	1.1	38	4.4	3.8	1	0.1	0.1	50	5.8	5.0
Carbon	0	0.0	0.0	6	2.0	3.1	0	0.0	0.0	6	2.0	3.1
Daggett	1	3.6	10.5	6	21.6	62.9	0	0.0	0.0	7	25.2	73.4
Davis	2	0.1	0.1	66	2.9	2.5	2	0.1	0.1	70	3.0	2.6
Duchesne	3	1.5	2.0	8	3.9	5.4	0	0.0	0.0	11	5.3	7.4
Emery	3	0.8	2.9	1	0.3	1.0	0	0.0	0.0	4	1.1	3.8
Garfield	2	1.6	4.3	4	3.2	8.6	0	0.0	0.0	6	4.8	13.0
Grand	1	0.4	1.2	9	3.2	10.5	2	0.7	2.3	12	4.3	13.9
Iron	0	0.0	0.0	23	3.6	5.9	3	0.5	0.8	26	4.1	6.7
Juab	1	0.3	1.1	5	1.3	5.7	1	0.3	1.1	7	1.8	7.9
Kane	2	1.5	3.3	7	5.4	11.6	0	0.0	0.0	9	6.9	14.9
Millard	4	0.9	3.0	8	1.9	6.1	0	0.0	0.0	12	2.8	9.1
Morgan	2	1.7	2.4	11	9.4	13.3	0	0.0	0.0	13	11.1	15.8
Piute	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
Rich	2	3.8	9.7	3	5.7	14.5	0	0.0	0.0	5	9.5	24.2
Salt Lake	57	0.7	0.6	306	3.8	3.2	7	0.1	0.1	370	4.6	3.9
San Juan	1	0.4	0.7	7	2.5	4.9	2	0.7	1.4	10	3.6	7.0
Sanpete	2	0.8	0.8	3	1.2	1.2	0	0.0	0.0	5	2.1	2.0
Sevier	1	0.2	0.5	8	1.9	4.1	1	0.2	0.5	10	2.4	5.2
Summit	3	0.4	0.9	12	1.8	3.4	0	0.0	0.0	15	2.2	4.3
Tooele	3	0.4	0.6	20	2.4	4.0	0	0.0	0.0	23	2.8	4.6
Uintah	3	1.0	1.1	14	4.6	5.3	1	0.3	0.4	18	5.9	6.9
Utah	20	0.6	0.5	150	4.3	3.4	3	0.1	0.1	173	4.9	4.0
Wasatch	1	0.4	0.5	18	6.8	9.4	1	0.4	0.5	20	7.5	10.4
Washington	14	1.3	1.2	48	4.4	4.1	3	0.3	0.3	65	6.0	5.5
Wayne	0	0.0	0.0	14	36.5	55.6	0	0.0	0.0	14	36.5	55.6
Weber	9	0.6	0.4	70	4.6	3.3	3	0.2	0.1	82	5.4	3.9
Statewide	149	0.6	0.6	877	3.6	3.6	31	0.1	0.1	1,057	4.3	4.3

- Two different rates are given in the above table; one based on vehicle miles traveled in the county, and another based on the population of the county.
- Rate per 100 million vehicle miles traveled:
 - Wayne (36.5), Daggett (21.6) and Morgan (9.4) had the highest rates of motorcyclists injured in crashes per 100 million vehicle miles traveled.
 - Grand (0.7), San Juan (0.7) and Iron (0.5) had the highest rates of motorcyclists killed in crashes per 100 million vehicle miles traveled.
- Rate per 10,000 population:
 - Daggett (62.9), Wayne (55.6) and Rich (14.5) had the highest rates of motorcyclists injured in crashes per 10,000 population.
 - Grand (2.3), San Juan (1.4) and Juan (1.1) had the highest rates of motorcyclists killed in crashes per 10,000 population.

Counties

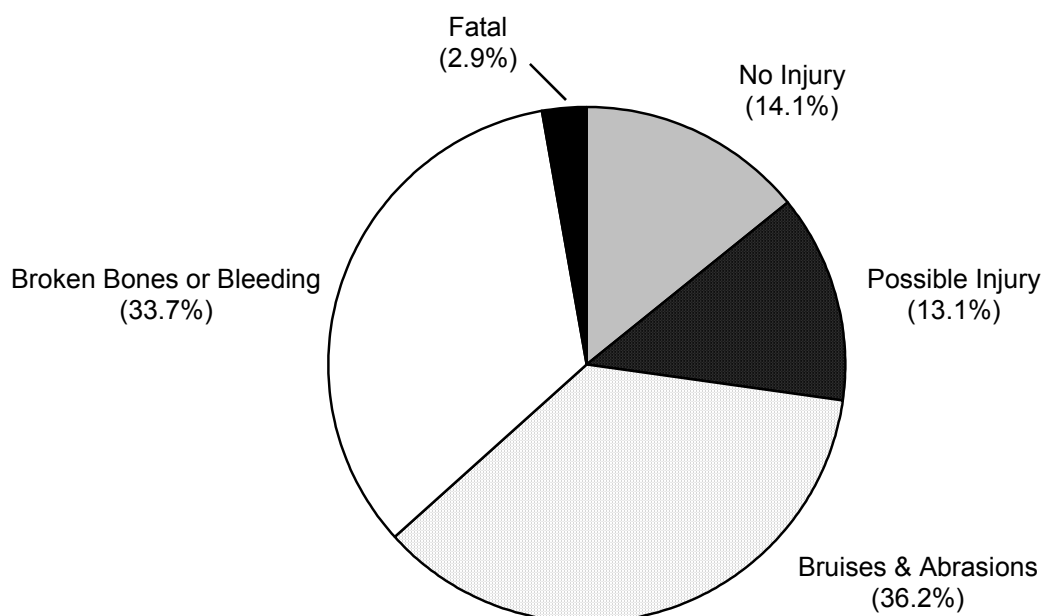
Motorcycle Crashes by County (Utah 2004)

County	Motorcycle Crashes											
	Property Damage Only (PDO)			Injury			Fatal			Total		
	Motorcycle PDO Crashes #	Rate per 100 Million VMT	Rate per 10,000 Population	Motorcycle Injury Crashes #	Rate per 100 Million VMT	Rate per 10,000 Population	Motorcycle Fatal Crashes #	Rate per 100 Million VMT	Rate per 10,000 Population	All Motorcycle Crashes #	Rate per 100 Million VMT	Rate per 10,000 Population
Beaver	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
Box Elder	1	0.1	0.2	12	1.4	2.7	1	0.1	0.2	14	1.6	3.1
Cache	9	1.0	0.9	34	3.9	3.4	1	0.1	0.1	44	5.1	4.4
Carbon	0	0.0	0.0	5	1.7	2.6	0	0.0	0.0	5	1.7	2.6
Daggett	0	0.0	0.0	4	14.4	41.9	0	0.0	0.0	4	14.4	41.9
Davis	3	0.1	0.1	58	2.5	2.2	2	0.1	0.1	63	2.7	2.3
Duchesne	0	0.0	0.0	6	2.9	4.0	0	0.0	0.0	6	2.9	4.0
Emery	1	0.3	1.0	1	0.3	1.0	0	0.0	0.0	2	0.6	1.9
Garfield	1	0.8	2.2	4	3.2	8.6	0	0.0	0.0	5	4.0	10.8
Grand	1	0.4	1.2	9	3.2	10.5	2	0.7	2.3	12	4.3	13.9
Iron	0	0.0	0.0	18	2.8	4.6	3	0.5	0.8	21	3.3	5.4
Juab	1	0.3	1.1	5	1.3	5.7	1	0.3	1.1	7	1.8	7.9
Kane	0	0.0	0.0	7	5.4	11.6	0	0.0	0.0	7	5.4	11.6
Millard	1	0.2	0.8	7	1.6	5.3	0	0.0	0.0	8	1.9	6.1
Morgan	2	1.7	2.4	10	8.6	12.1	0	0.0	0.0	12	10.3	14.5
Plute	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
Rich	1	1.9	4.8	2	3.8	9.7	0	0.0	0.0	3	5.7	14.5
Salt Lake	46	0.6	0.5	287	3.5	3.0	7	0.1	0.1	340	4.2	3.6
San Juan	1	0.4	0.7	7	2.5	4.9	2	0.7	1.4	10	3.6	7.0
Sanpete	1	0.4	0.4	3	1.2	1.2	0	0.0	0.0	4	1.7	1.6
Sevier	2	0.5	1.0	7	1.7	3.6	1	0.2	0.5	10	2.4	5.2
Summit	1	0.1	0.3	12	1.8	3.4	0	0.0	0.0	13	1.9	3.7
Tooele	0	0.0	0.0	16	1.9	3.2	0	0.0	0.0	16	1.9	3.2
Uintah	2	0.7	0.8	11	3.6	4.2	1	0.3	0.4	14	4.6	5.3
Utah	13	0.4	0.3	138	3.9	3.2	2	0.1	0.0	153	4.4	3.5
Wasatch	1	0.4	0.5	15	5.6	7.8	1	0.4	0.5	17	6.4	8.9
Washington	10	0.9	0.9	48	4.4	4.1	2	0.2	0.2	60	5.6	5.1
Wayne	0	0.0	0.0	13	33.9	51.6	0	0.0	0.0	13	33.9	51.6
Weber	6	0.4	0.3	66	4.3	3.1	3	0.2	0.1	75	4.9	3.6
Statewide	104	0.4	0.4	805	3.3	3.3	29	0.1	0.1	938	3.8	3.8

- Two different rates are given in the above table; one based on vehicle miles traveled in the county, and another based on the population of the county.
- Rate per 100 million vehicle miles traveled:
 - Wayne (33.9), Daggett (14.4) and Morgan (8.6) had the highest rates of motorcycle injury crashes per 100 million vehicle miles traveled.
 - Grand (0.7), San Juan (0.7) and Iron (0.5) had the highest rates of fatal motorcycle crashes per 100 million vehicle miles traveled.
- Rate per 10,000 population:
 - Wayne (51.6), Daggett (41.9) and Morgan (12.1) had the highest rates of motorcycle injury crashes per 10,000 population.
 - Grand (2.3), San Juab (1.4) and Iron (0.8) had the highest rates of fatal motorcycle crashes per 10,000 population.

Motorcyclist Characteristics (Driver and Passenger)

Injury Severity of Motorcyclists Involved in Crashes (Utah 2004)



- In the above graph, there were a total of 1,057 motorcyclists involved in crashes.
- The above graph shows that the percentage of motorcyclists sustaining a non-fatal injury (85.9%) was much higher than the percentage of all motor vehicle crash occupants sustaining a non-fatal injury (21.0%).
- A fatal injury was sustained by 2.9% of motorcyclists compared to 0.2% of all motor vehicle crash occupants.
- In fact, motorcyclists were 16 times more likely to be killed in a crash than other motor vehicle crash occupants.

Occupant Placement of Motorcyclists Involved in Crashes (Utah 2004)

Motorcyclists (Driver and Passenger)								
Occupant Placement	Non-Injured Motorcyclists		Injured Motorcyclists		Motorcyclists Killed		Total Motorcyclists	
	#	%	#	%	#	%	#	%
Driver	132	88.6%	796	90.8%	29	93.5%	957	90.5%
Passenger	17	11.4%	81	9.2%	2	6.5%	100	9.5%
Total	149	100.0%	877	100.0%	31	100.0%	1,057	100.0%

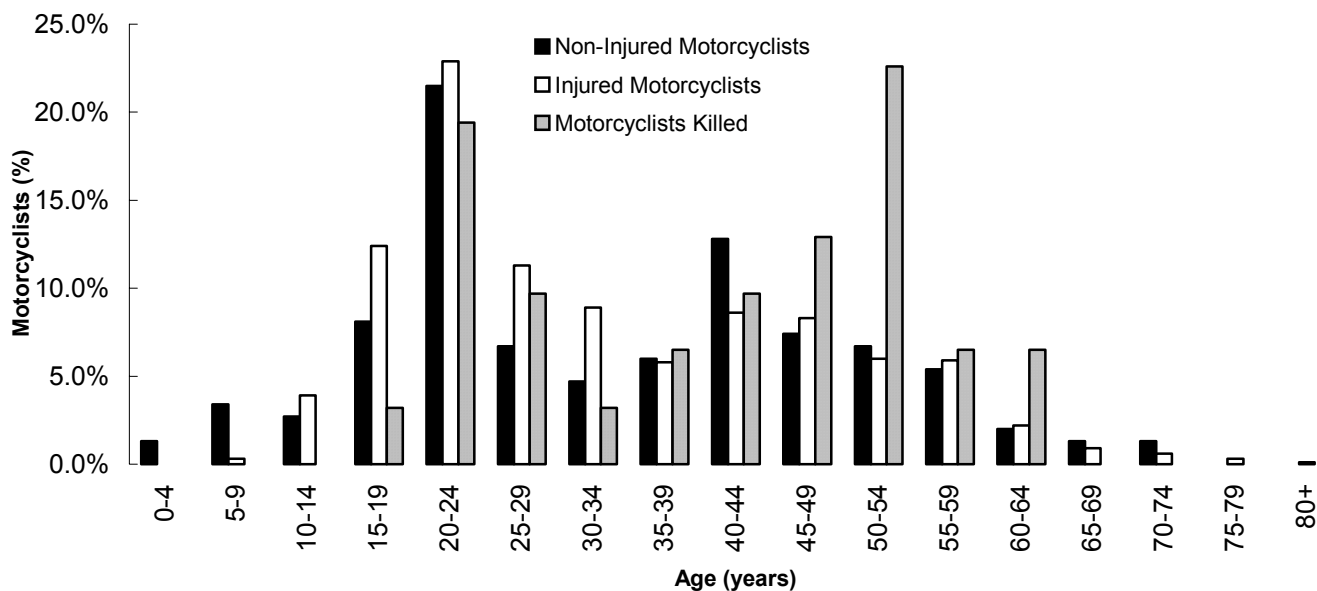
- The above table shows that drivers accounted for the majority of injured motorcyclists (90.8%) and 93.5% of the motorcyclist fatalities.
- In addition, there were 2 pedestrians and 8 bicyclists involved in motorcycle crashes. All of the pedestrians and bicyclists sustained non-fatal injuries.

Motorcyclist Characteristics (Driver and Passenger)

Age of Motorcyclists Involved in Crashes (Utah 2004)

Motorcyclists (Driver and Passenger)								
Age	Non-Injured Motorcyclists		Injured Motorcyclists		Motorcyclists Killed		Total Motorcyclists	
	#	%	#	%	#	%	#	%
0-4	2	1.3%	0	0.0%	0	0.0%	2	0.2%
5-9	5	3.4%	3	0.3%	0	0.0%	8	0.8%
10-14	4	2.7%	34	3.9%	0	0.0%	38	3.6%
15-19	12	8.1%	109	12.4%	1	3.2%	122	11.5%
20-24	32	21.5%	201	22.9%	6	19.4%	239	22.6%
25-29	10	6.7%	99	11.3%	3	9.7%	112	10.6%
30-34	7	4.7%	78	8.9%	1	3.2%	86	8.1%
35-39	9	6.0%	51	5.8%	2	6.5%	62	5.9%
40-44	19	12.8%	75	8.6%	3	9.7%	97	9.2%
45-49	11	7.4%	73	8.3%	4	12.9%	88	8.3%
50-54	10	6.7%	53	6.0%	7	22.6%	70	6.6%
55-59	8	5.4%	52	5.9%	2	6.5%	62	5.9%
60-64	3	2.0%	19	2.2%	2	6.5%	24	2.3%
65-69	2	1.3%	8	0.9%	0	0.0%	10	0.9%
70-74	2	1.3%	5	0.6%	0	0.0%	7	0.7%
75-79	0	0.0%	3	0.3%	0	0.0%	3	0.3%
80+	0	0.0%	1	0.1%	0	0.0%	1	0.1%
Missing	13	8.7%	13	1.5%	0	0.0%	26	2.5%
Total	149	100.0%	877	100.0%	31	100.0%	1,057	100.0%

Age of Motorcyclists Involved in Crashes (Utah 2004)



- Overall, the largest percentage of motorcyclists involved in crashes were aged 20 to 24 years (22.6%). This age group also represented the largest percentage of injured motorcyclists involved in crashes (22.9%).
- The highest percentage of motorcyclist fatalities occurred in the 50 to 54 year age group (22.6%) and the 20 to 24 year age group (19.4%).

Motorcyclist Characteristics (Driver and Passenger)

Gender of Motorcyclists Involved in Crashes (Utah 2004)

Motorcyclists (Driver and Passenger)							
Gender	Non-Injured Motorcyclists		Injured Motorcyclists		Motorcyclists Killed		Total Motorcyclists
	#	%	#	%	#	%	# %
Female	18	12.1%	133	15.2%	4	12.9%	155 14.7%
Male	120	80.5%	743	84.7%	27	87.1%	890 84.2%
Missing	11	7.4%	1	0.1%	0	0.0%	12 1.1%
Total	149	100.0%	877	100.0%	31	100.0%	1,057 100.0%

- The majority of all motorcyclists (84.2%), injured motorcyclists (84.7%) and motorcyclists killed (87.1%) in crashes were male.

Helmet Use of Motorcyclists Involved in Crashes (Utah 2004)

Motorcyclists (Driver and Passenger)							
Helmet Use	Non-Injured Motorcyclists		Injured Motorcyclists		Motorcyclists Killed		Total Motorcyclists
	#	%	#	%	#	%	# %
Helmet Worn	40	26.8%	339	38.7%	14	45.2%	393 37.2%
Helmet Not Worn / Unknown	109	73.2%	538	61.3%	17	54.8%	664 62.8%
Total	149	100.0%	877	100.0%	31	100.0%	1,057 100.0%

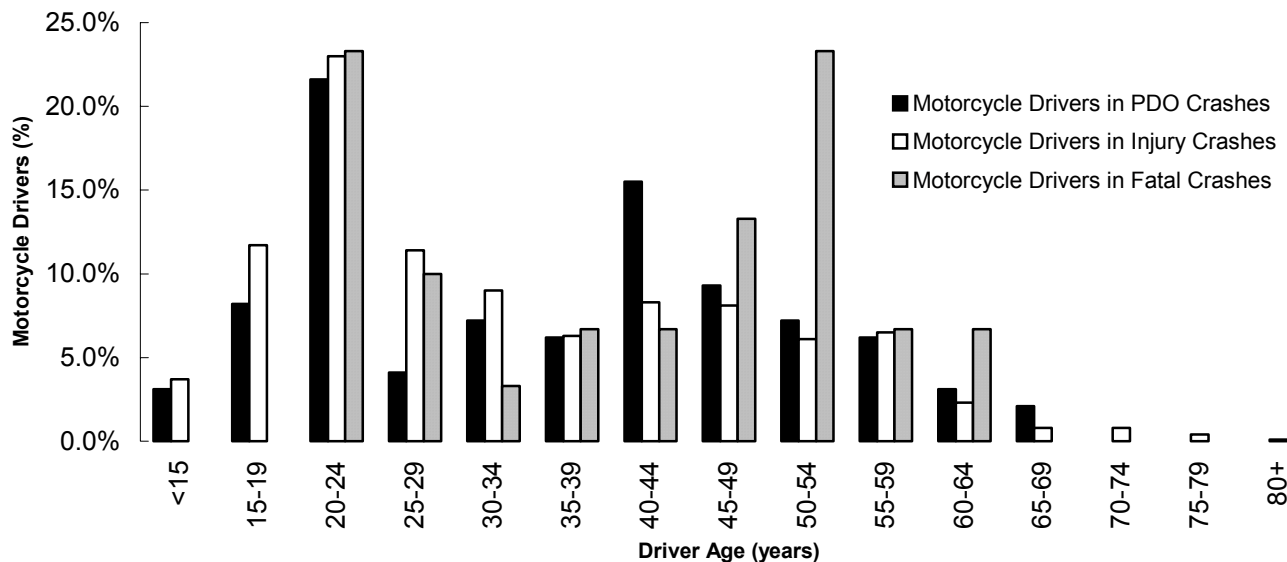
- Only 37.2% of motorcycle drivers and passengers involved in crashes wore a helmet.
- Utah law states that anyone under the age of 18 years riding a motorcycle, either as the driver or as the passenger, must wear a helmet approved by the Department of Public Safety.

Motorcycle Driver Characteristics

Motorcycle Driver Age (Utah 2004)

Motorcycle Drivers							
Driver Age	Motorcycle Drivers Involved in Property Damage Only Crashes		Motorcycle Drivers Involved in Injury Crashes		Motorcycle Drivers Involved in Fatal Crashes		Total Motorcycle Drivers Involved in Crashes
	#	%	#	%	#	%	# %
<15	3	3.1%	31	3.7%	0	0.0%	34 3.6%
15-19	8	8.2%	97	11.7%	0	0.0%	105 11.0%
20-24	21	21.6%	191	23.0%	7	23.3%	219 22.9%
25-29	4	4.1%	95	11.4%	3	10.0%	102 10.7%
30-34	7	7.2%	75	9.0%	1	3.3%	83 8.7%
35-39	6	6.2%	52	6.3%	2	6.7%	60 6.3%
40-44	15	15.5%	69	8.3%	2	6.7%	86 9.0%
45-49	9	9.3%	67	8.1%	4	13.3%	80 8.4%
50-54	7	7.2%	51	6.1%	7	23.3%	65 6.8%
55-59	6	6.2%	54	6.5%	2	6.7%	62 6.5%
60-64	3	3.1%	19	2.3%	2	6.7%	24 2.5%
65-69	2	2.1%	7	0.8%	0	0.0%	9 0.9%
70-74	0	0.0%	7	0.8%	0	0.0%	7 0.7%
75-79	0	0.0%	3	0.4%	0	0.0%	3 0.3%
80+	0	0.0%	1	0.1%	0	0.0%	1 0.1%
Missing	6	6.2%	11	1.3%	0	0.0%	17 1.8%
Total	97	100.0%	830	100.0%	30	100.0%	957 100.0%

Age of Motorcycle Drivers Involved in Crashes (Utah 2004)



- The above table and graph show that approximately one-half (48.2%) of the motorcycle drivers involved in crashes were under the age of 30 years.
- The percentage of drivers involved in injury crashes was highest for those aged 20 to 24 years (22.9%).
- The percentage of drivers involved in fatal crashes was highest for those aged 20 to 24 years (23.3%) and 50 to 54 years (23.3%).

Motorcycle Driver Characteristics

Motorcycle Driver Gender (Utah 2004)

Motorcycle Drivers								
Driver Gender	Motorcycle Drivers Involved in Property Damage Only Crashes		Motorcycle Drivers Involved in Injury Crashes		Motorcycle Drivers Involved in Fatal Crashes		Total Motorcycle Drivers Involved in Crashes	
	#	%	#	%	#	%	#	%
Female	9	9.3%	78	9.4%	2	6.7%	89	9.3%
Male	82	84.5%	749	90.2%	28	93.3%	859	89.8%
Missing	6	6.2%	3	0.4%	0	0.0%	9	0.9%
Total	97	100.0%	830	100.0%	30	100.0%	957	100.0%

- The majority of motorcycle drivers involved in total crashes (89.8%), injury crashes (90.2%) and fatal crashes (93.3%) were male. This does not necessarily indicate that male motorcycle drivers are at greater risk for a crash, but may reflect a higher proportion of male motorcycle drivers in Utah.

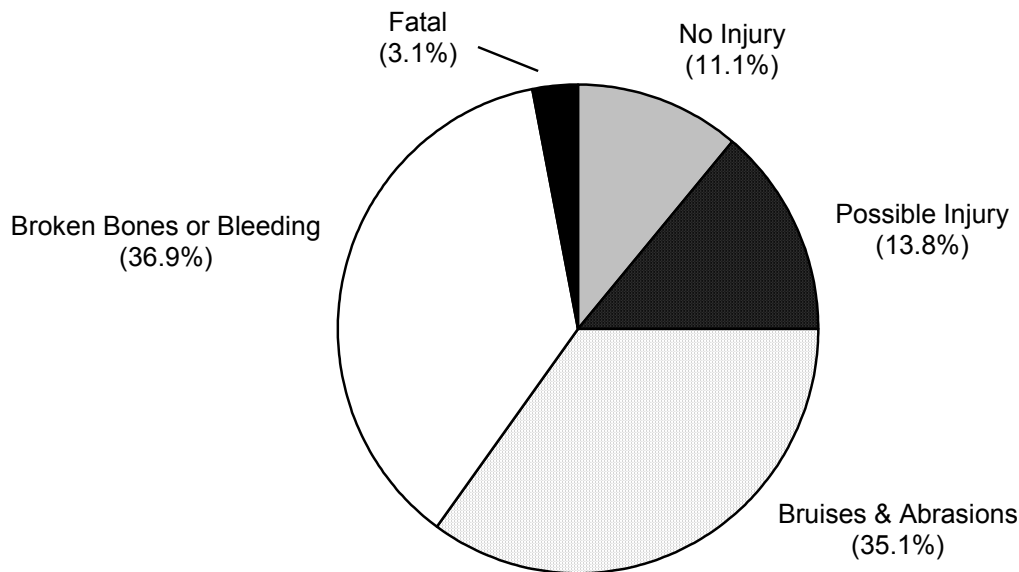
Alcohol and Other Drug Involvement of Motorcycle Drivers (Utah 2004)



- Of the 30 motorcycle drivers involved in fatal crashes in 2004, 5 were impaired by alcohol or other drugs (16.7%).

Motorcycle Crash Characteristics

Motorcycle Crash Severity (Utah 2004)



- In the above graph, there were a total of 938 motorcycle crashes.
- Most motorcycle crashes resulted in a non-fatal injury (85.8%) compared to 36.0% of all motor vehicle crashes.
- The percentage of fatal motorcycle crashes was 3.1%, compared to 0.5% of all motor vehicle crashes.
- In fact, motorcycle crashes were 7 times more likely to be fatal than other motor vehicle crashes.

Motorcycle Crashes by Month of Year (Utah 2004)

Motorcycle Crashes									
Month	Days in Month #	Property Damage Only (PDO)		Injury		Fatal		Total	
		Motorcycle PDO Crashes #	Rate per Day	Motorcycle Injury Crashes #	Rate per Day	Motorcycle Fatal Crashes #	Rate per Day	All Motorcycle Crashes #	Rate per Day
January	31	2	0.1	5	0.2	0	0.0	7	0.2
February	29	3	0.1	10	0.3	0	0.0	13	0.4
March	31	10	0.3	68	2.2	1	0.0	79	2.5
April	30	6	0.2	68	2.3	1	0.0	75	2.5
May	31	10	0.3	98	3.2	3	0.1	111	3.6
June	30	11	0.4	118	3.9	8	0.3	137	4.6
July	31	16	0.5	115	3.7	5	0.2	136	4.4
August	31	13	0.4	131	4.2	6	0.2	150	4.8
September	30	15	0.5	91	3.0	4	0.1	110	3.7
October	31	11	0.4	66	2.1	1	0.0	78	2.5
November	30	4	0.1	19	0.6	0	0.0	23	0.8
December	31	3	0.1	16	0.5	0	0.0	19	0.6
Total	366	104	0.3	805	2.2	29	0.1	938	2.6

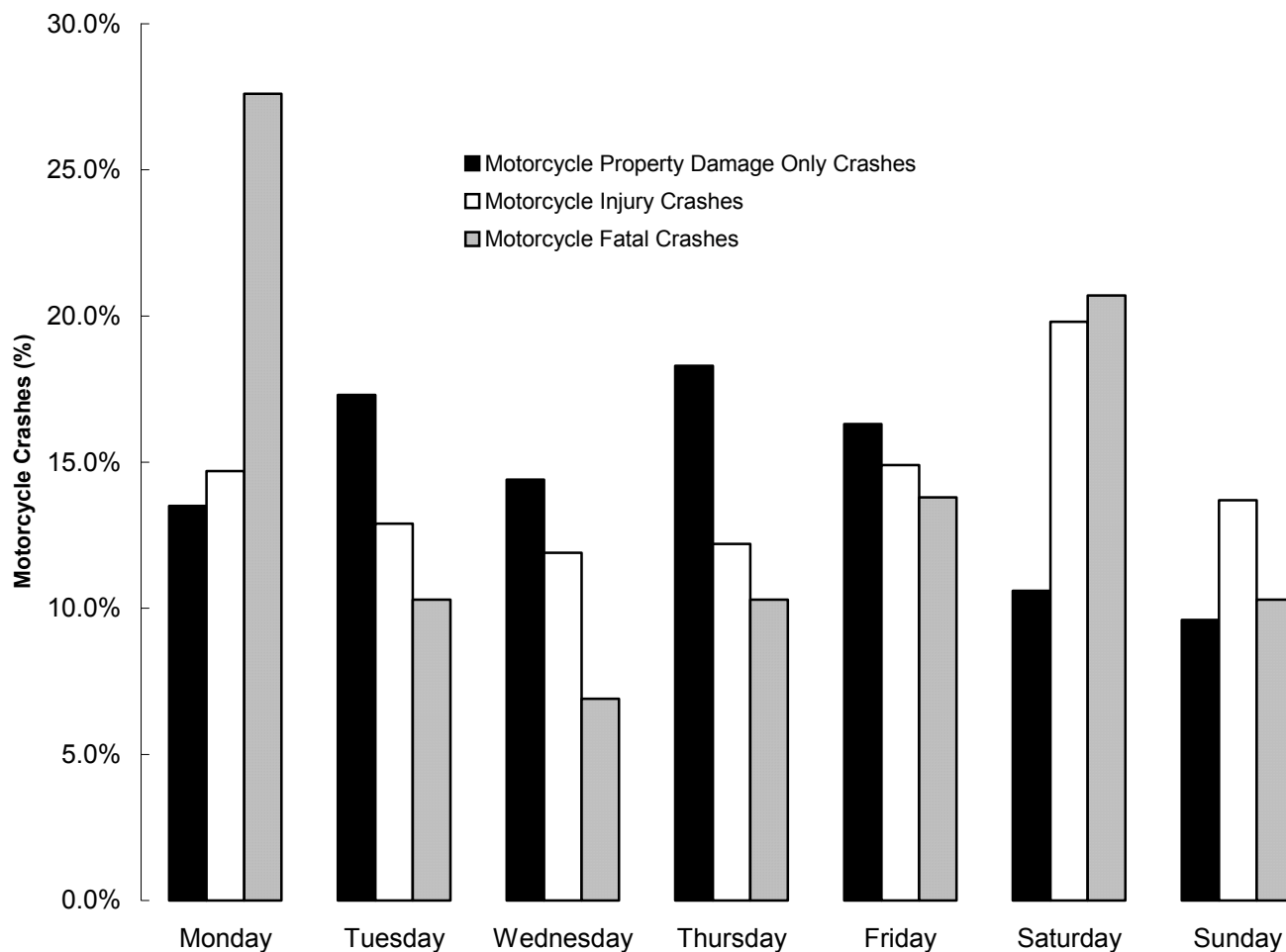
- The above table shows May through September had the highest rates per day of total motorcycle crashes and injury crashes. Very few motorcycle crashes occurred in the winter months, this is likely due to the decrease of individuals riding motorcycles in the winter.

Motorcycle Crash Characteristics

Motorcycle Crashes by Day of Week (Utah 2004)

Motorcycle Crashes								
Day of Week	Property Damage Only Crashes		Injury Crashes		Fatal Crashes		Total Crashes	
	#	%	#	%	#	%	#	%
Monday	14	13.5%	118	14.7%	8	27.6%	140	14.9%
Tuesday	18	17.3%	104	12.9%	3	10.3%	125	13.3%
Wednesday	15	14.4%	96	11.9%	2	6.9%	113	12.0%
Thursday	19	18.3%	98	12.2%	3	10.3%	120	12.8%
Friday	17	16.3%	120	14.9%	4	13.8%	141	15.0%
Saturday	11	10.6%	159	19.8%	6	20.7%	176	18.8%
Sunday	10	9.6%	110	13.7%	3	10.3%	123	13.1%
Total	104	100.0%	805	100.0%	29	100.0%	938	100.0%

Motorcycle Crashes by Day of Week (Utah 2004)



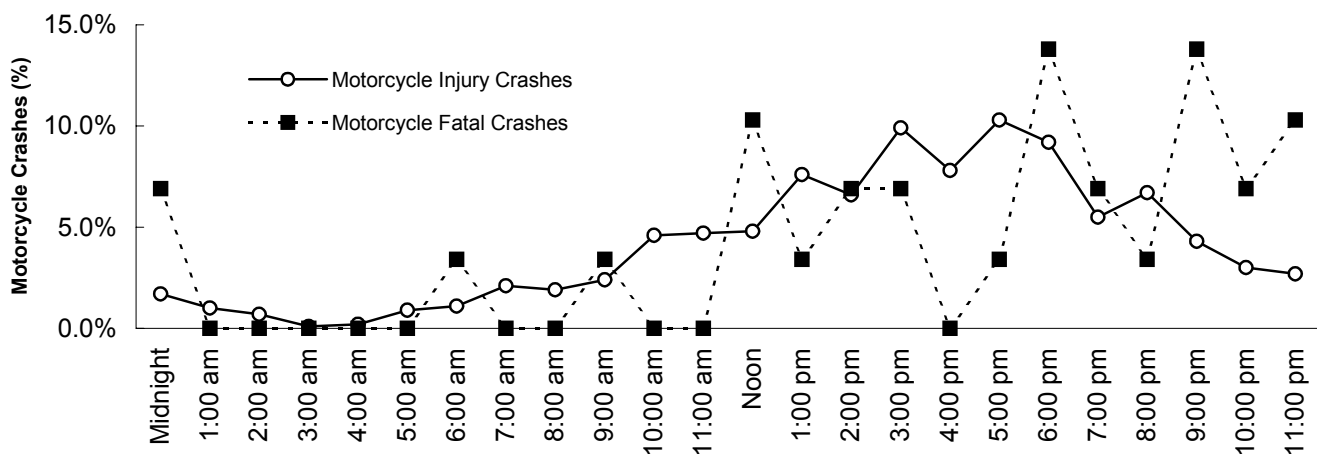
- The above table and graph show that the highest percentage of total motorcycle crashes (18.8%) and motorcycle injury crashes (19.8%) occurred on Saturday.
- Fatal motorcycle crashes occurred most frequently on Monday (27.6%).

Motorcycle Crash Characteristics

Motorcycle Crashes by Hour of Day (Utah 2004)

Motorcycle Crashes								
Hour	Property Damage Only Crashes		Injury Crashes		Fatal Crashes		Total Crashes	
	#	%	#	%	#	%	#	%
Midnight	1	1.0%	14	1.7%	2	6.9%	17	1.8%
1:00 am	2	1.9%	8	1.0%	0	0.0%	10	1.1%
2:00 am	0	0.0%	6	0.7%	0	0.0%	6	0.6%
3:00 am	2	1.9%	1	0.1%	0	0.0%	3	0.3%
4:00 am	1	1.0%	2	0.2%	0	0.0%	3	0.3%
5:00 am	0	0.0%	7	0.9%	0	0.0%	7	0.7%
6:00 am	0	0.0%	9	1.1%	1	3.4%	10	1.1%
7:00 am	2	1.9%	17	2.1%	0	0.0%	19	2.0%
8:00 am	0	0.0%	15	1.9%	0	0.0%	15	1.6%
9:00 am	3	2.9%	19	2.4%	1	3.4%	23	2.5%
10:00 am	2	1.9%	37	4.6%	0	0.0%	39	4.2%
11:00 am	3	2.9%	38	4.7%	0	0.0%	41	4.4%
Noon	11	10.6%	39	4.8%	3	10.3%	53	5.7%
1:00 pm	3	2.9%	61	7.6%	1	3.4%	65	6.9%
2:00 pm	7	6.7%	53	6.6%	2	6.9%	62	6.6%
3:00 pm	8	7.7%	80	9.9%	2	6.9%	90	9.6%
4:00 pm	10	9.6%	63	7.8%	0	0.0%	73	7.8%
5:00 pm	14	13.5%	83	10.3%	1	3.4%	98	10.4%
6:00 pm	11	10.6%	74	9.2%	4	13.8%	89	9.5%
7:00 pm	10	9.6%	44	5.5%	2	6.9%	56	6.0%
8:00 pm	5	4.8%	54	6.7%	1	3.4%	60	6.4%
9:00 pm	2	1.9%	35	4.3%	4	13.8%	41	4.4%
10:00 pm	2	1.9%	24	3.0%	2	6.9%	28	3.0%
11:00 pm	5	4.8%	22	2.7%	3	10.3%	30	3.2%
Total	104	100.0%	805	100.0%	29	100.0%	938	100.0%

Motorcycle Crashes by Hour of Day (Utah 2004)



- In 2004, total motorcycle crashes and injury motorcycle crashes followed a similar time pattern, peaking between 1:00 pm and 6:00 pm.
- The highest proportion of fatal motorcycle crashes occurred during the 6:00 pm hour and the 9:00 pm hour.

Motorcycle Crash Characteristics

Types of Crashes Involving Motorcycles (Utah 2004)

Motorcycle Crashes								
Crash Type	Property Damage Only Crashes		Injury Crashes		Fatal Crashes		Total Crashes	
	#	%	#	%	#	%	#	%
Two Motor Vehicles	75	72.1%	368	45.7%	13	44.8%	456	48.6%
Overtuned in Roadway	6	5.8%	116	14.4%	5	17.2%	127	13.5%
Ran Off Roadway - To the Right	5	4.8%	115	14.3%	6	20.7%	126	13.4%
Other Non-Collision	5	4.8%	64	8.0%	0	0.0%	69	7.4%
Ran Off Roadway - To the Left	4	3.8%	39	4.8%	3	10.3%	46	4.9%
Motor Vehicle and Fixed Object	2	1.9%	36	4.5%	1	3.4%	39	4.2%
Motor Vehicle and Other Object	3	2.9%	22	2.7%	0	0.0%	25	2.7%
Motor Vehicle and Wild Animal	4	3.8%	18	2.2%	1	3.4%	23	2.5%
Motor Vehicle and Skates, Scooters, Skateboards	0	0.0%	9	1.1%	0	0.0%	9	1.0%
Motor Vehicle and Bicycle	0	0.0%	8	1.0%	0	0.0%	8	0.9%
Motor Vehicle and Domestic Animal	0	0.0%	6	0.7%	0	0.0%	6	0.6%
Ran Off Roadway - Through Median	0	0.0%	3	0.4%	0	0.0%	3	0.3%
Motor Vehicle and Pedestrian	0	0.0%	1	0.1%	0	0.0%	1	0.1%
Total	104	100.0%	805	100.0%	29	100.0%	938	100.0%

- The majority of motorcycle property damage only crashes (72.1%), injury crashes (45.7%) and fatal crashes (44.8%) involved another motor vehicle.
- "Ran off the roadway" (to the right, to the left, or through the median) accounted for another 31.0% of the fatal motorcycle crashes.

Collision Description of Motorcycle Crashes (Utah 2004)

Motorcycle Crashes								
Collision Description	Property Damage Only Crashes		Injury Crashes		Fatal Crashes		Total Crashes	
	#	%	#	%	#	%	#	%
Single Vehicle Rollover	11	10.6%	293	36.4%	12	41.4%	316	33.7%
Broadside	20	19.2%	153	19.0%	8	27.6%	181	19.3%
Rear End	24	23.1%	112	13.9%	1	3.4%	137	14.6%
Single Vehicle Fixed Object	1	1.0%	45	5.6%	4	13.8%	50	5.3%
Side Swipe	4	3.8%	30	3.7%	1	3.4%	35	3.7%
Head-On	2	1.9%	10	1.2%	3	10.3%	15	1.6%
Bicyclist/Pedestrian Crash	0	0.0%	9	1.1%	0	0.0%	9	1.0%
Other	42	40.4%	153	19.0%	0	0.0%	195	20.8%
Total	104	49.0%	805	44.6%	29	58.6%	938	45.5%

- Overall, the leading collision types for motorcycle crashes (excluding other) were single vehicle rollovers (33.7%), broadside (19.3%) and rear end collisions (14.6%).
- The leading collision types for motorcycle injury crashes (excluding other) were also single vehicle rollovers (36.4%), broadside (19.0%) and rear end collisions (13.9%).
- Single vehicle rollovers (41.4%) and broadside collisions (27.6%) accounted for the majority of fatal motorcycle crashes.

Motorcycle Crash Characteristics

Urban/Rural Location of Motorcycle Crashes (Utah 2004)

Motorcycle Crashes								
Urban/Rural Location	Property Damage Only Crashes		Injury Crashes		Fatal Crashes		Total Crashes	
	#	%	#	%	#	%	#	%
Rural Area - Up to 5,000	26	25.0%	285	35.4%	16	55.2%	327	34.9%
Small Urban - 5,000 to 49,999	10	9.6%	55	6.8%	2	6.9%	67	7.1%
Moderate Urban - 50,000 to 199,999	7	6.7%	14	1.7%	0	0.0%	21	2.2%
Large Urban - 200,000 or More	61	58.7%	438	54.4%	11	37.9%	510	54.4%
Missing	0	0.0%	13	1.6%	0	0.0%	13	1.4%
Total	104	100.0%	805	100.0%	29	100.0%	938	100.0%

- While the majority of total motorcycle crashes (63.7%) as well as the majority of motorcycle injury crashes (62.9%) occurred in small, moderate and large urban areas, the majority of fatal motorcycle crashes occurred in rural areas (55.2%).
- In fact, motorcycle crashes occurring in rural areas were twice as likely to result in a fatality than motorcycle crashes in urban areas.

Motorcycle Crash Violations (Utah 2004)

Violations (Motorcycle Drivers)								
Violations	Motorcycle Drivers Cited in PDO Crashes		Motorcycle Drivers Cited in Injury Crashes		Motorcycle Drivers Cited in Fatal Crashes		Total Motorcycle Drivers Cited	
	#	%	#	%	#	%	#	%
Other Non-Moving Violations	10	43.5%	47	24.4%	0	0.0%	57	26.4%
All Other Moving Violations	4	17.4%	28	14.5%	0	0.0%	32	14.8%
Following Too Close	5	21.7%	22	11.4%	0	0.0%	27	12.5%
Improper Lookout	2	8.7%	18	9.3%	0	0.0%	20	9.3%
Driving Under the Influence	0	0.0%	16	8.3%	0	0.0%	16	7.4%
Speeding	0	0.0%	13	6.7%	0	0.0%	13	6.0%
Reckless Driving	0	0.0%	10	5.2%	0	0.0%	10	4.6%
Failure to Yield Right-of-Way	0	0.0%	10	5.2%	0	0.0%	10	4.6%
Improper Lane Change	0	0.0%	9	4.7%	0	0.0%	9	4.2%
Wrong Side of Road	0	0.0%	4	2.1%	0	0.0%	4	1.9%
Negligent Collision	0	0.0%	4	2.1%	0	0.0%	4	1.9%
Hit and Run	0	0.0%	4	2.1%	0	0.0%	4	1.9%
Failure to Stop at Red Light	0	0.0%	2	1.0%	0	0.0%	2	0.9%
Failure to Stop at Stop Sign	0	0.0%	2	1.0%	0	0.0%	2	0.9%
Improper Passing	0	0.0%	2	1.0%	0	0.0%	2	0.9%
Improper Turn (Failure to Signal)	1	4.3%	1	0.5%	0	0.0%	2	0.9%
Wrong Way on One-Way Street	0	0.0%	1	0.5%	0	0.0%	1	0.5%
Improper Backing	1	4.3%	0	0.0%	0	0.0%	1	0.5%
Total	23	100.0%	193	100.0%	0	0.0%	216	100.0%

- In 2004, there were 957 motorcycle drivers involved in crashes. Officers at the scene of the crash cited 216 (22.6%) of those drivers for a traffic violation.
- Overall, motorcycle drivers involved in crashes were cited most often for "other non-moving violations" (26.4%), "all other moving violations" (14.8%) and "following too close" (12.5%).

Motorcycle Crash Characteristics

Contributing Factors of Motorcycle Crashes (Utah 2004)

Contributing Factors (Motorcycle Crashes)							
Contributing Factors	Contributing Factors Coded for Vehicles Involved in:						
	Motorcycle Property Damage Only Crashes		Motorcycle Injury Crashes		Motorcycle Fatal Crashes		Total Motorcycle Crashes
	#	%	#	%	#	%	# %
Speed Too Fast	9	11.1%	155	23.1%	12	36.4%	176 22.4%
Other Improper Driving	13	16.0%	147	21.9%	6	18.2%	166 21.1%
Improper Lookout	14	17.3%	95	14.1%	1	3.0%	110 14.0%
Followed Too Closely	13	16.0%	60	8.9%	1	3.0%	74 9.4%
Failed to Yield Right of Way	5	6.2%	24	3.6%	0	0.0%	29 3.7%
Made Improper Turn	4	4.9%	20	3.0%	0	0.0%	24 3.1%
Object in Roadway	2	2.5%	19	2.8%	1	3.0%	22 2.8%
Drove Left of Center	2	2.5%	18	2.7%	1	3.0%	21 2.7%
Non-Contact Vehicle Involved	5	6.2%	14	2.1%	1	3.0%	20 2.5%
Improper Overtaking	3	3.7%	12	1.8%	1	3.0%	16 2.0%
Driving Under the Influence	0	0.0%	14	2.1%	1	3.0%	15 1.9%
Other Driver Distractions	0	0.0%	14	2.1%	0	0.0%	14 1.8%
Had Been Drinking	0	0.0%	12	1.8%	1	3.0%	13 1.7%
Aggressive Driving	1	1.2%	9	1.3%	2	6.1%	12 1.5%
Hit and Run	4	4.9%	6	0.9%	1	3.0%	11 1.4%
Other Defective Condition of Vehicle	1	1.2%	9	1.3%	0	0.0%	10 1.3%
Tires Defective	0	0.0%	9	1.3%	0	0.0%	9 1.1%
Disregard Traffic Signal	0	0.0%	7	1.0%	2	6.1%	9 1.1%
Passed Stop Sign	0	0.0%	3	0.4%	0	0.0%	3 0.4%
Improper Parking	1	1.2%	4	0.6%	0	0.0%	5 0.6%
Brakes Defective	1	1.2%	3	0.4%	0	0.0%	4 0.5%
Cargo Loss or Shifted	1	1.2%	3	0.4%	0	0.0%	4 0.5%
Wrong Side of Road	1	1.2%	2	0.3%	0	0.0%	3 0.4%
Headlights Insufficient or Out	0	0.0%	3	0.4%	0	0.0%	3 0.4%
Fatigued	0	0.0%	1	0.1%	1	3.0%	2 0.3%
Sick or Ill	0	0.0%	2	0.3%	0	0.0%	2 0.3%
Steering Mechanism Defective	0	0.0%	2	0.3%	0	0.0%	2 0.3%
Wrong Way on One-Way Street	1	1.2%	1	0.1%	0	0.0%	2 0.3%
Under the Influence of Drugs	0	0.0%	1	0.1%	0	0.0%	1 0.1%
Failed to Signal	0	0.0%	1	0.1%	0	0.0%	1 0.1%
Stolen	0	0.0%	1	0.1%	0	0.0%	1 0.1%
Windshield Not Clear	0	0.0%	0	0.0%	1	3.0%	1 0.1%
Jackknife	0	0.0%	1	0.1%	0	0.0%	1 0.1%
Total	81	100.0%	672	100.0%	33	100.0%	786 100.0%

- Contributing factors were coded by the police officer at the scene of the crash for each vehicle involved in the crash. The officer may record no contributing factor or up to two different contributing factors.
- "Speed too fast" was the leading contributing factor for total motorcycle crashes (22.4%), motorcycle injury crashes (23.1%) and fatal motorcycle crashes (36.4%).
- The combined contributing factors of "driving under the influence," "had been drinking" and "under the influence of drugs" accounted for 3.7% of total motorcycle crashes, 4.0% of motorcycle injury crashes, and 6.0% of fatal motorcycle crashes.